



RF Exposure Report

Report No.: SA140710C17D

FCC ID: PY314200260

Test Model: C6300BD

Received Date: July 14, 2015

Test Date: Aug. 17, 2015

Issued Date: Sep. 10, 2015

Applicant: NETGEAR, INC.

Address: 350 East Plumeria Drive San Jose, CA 95134

Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Hsin Chu Laboratory

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Release Control Record

| Issue No. | Description | Date Issued |
|--------------|-------------------|---------------|
| SA140710C17D | Original release. | Sep. 10, 2015 |



1 Certificate of Conformity

Product: Wireless Cable Data Gateway
Brand: NETGEAR
Test Model: C6300BD
Sample Status: ENGINEERING SAMPLE
Applicant: NETGEAR, INC.
Test Date: Aug. 17, 2015
Standards: FCC Part 2 (Section 2.1091)
KDB 447498 D03
IEEE C95.1

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

Prepared by : Midoli Peng, **Date:** Sep. 10, 2015
Midoli Peng / Specialist

Approved by : May Chen, **Date:** Sep. 10, 2015
May Chen / Manager

2 RF Exposure

2.1 Limits for Maximum Permissible Exposure (MPE)

| Frequency Range (MHz) | Electric Field Strength (V/m) | Magnetic Field Strength (A/m) | Power Density (mW/cm ²) | Average Time (minutes) |
|---|-------------------------------|-------------------------------|-------------------------------------|------------------------|
| Limits For General Population / Uncontrolled Exposure | | | | |
| 300-1500 | ... | ... | F/1500 | 30 |
| 1500-100,000 | ... | ... | 1.0 | 30 |

F = Frequency in MHz

2.2 MPE Calculation Formula

$$Pd = (Pout * G) / (4 * pi * r^2)$$

where

Pd = power density in mW/cm²

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

R = distance between observation point and center of the radiator in cm

2.3 Classification

The antenna of this product, under normal use condition, is at least 35cm away from the body of the user.

So, this device is classified as **Mobile Device**.

3 Antenna Gain

The antennas provided to the EUT, please refer to the following table:

| For 2.4GHz used | | | | | | |
|-----------------|---------------------|-------------|--------------|--------------|--------------------|----------------|
| Ant. No. | Transmitter Circuit | Brand | Model | Antenna Type | Antenna Gain (dBi) | Connector type |
| 1 | Chain (0) | Master Wave | 98P92UIPF030 | PCB | 2 | I-PEX |
| 2 | Chain (1) | | 98P92UIPF031 | | 2 | |
| 3 | Chain (2) | | 98P92UIPF033 | | 2 | |
| For 5GHz used | | | | | | |
| Ant. No. | Transmitter Circuit | Brand | Model | Antenna Type | Antenna Gain (dBi) | Connector type |
| 4 | Chain (0) | Master Wave | 98P92UIPF033 | PCB | 2 | I-PEX |
| 5 | Chain (1) | | 98P92UIPF034 | | 2 | |
| 6 | Chain (2) | | 98P92UIPF034 | | 2 | |

4 Calculation Result of Maximum Conducted Power

For 2.4GHz & 5GHz (U-NII-1 / U-NII-2A / U-NII-2C) data was referenced from the original test report (Report No.: SA150708E07B).

| Frequency Band (MHz) | Max Power (mW) | Antenna Gain (dBi) | Distance (cm) | Power Density (mW/cm ²) | Limit (mW/cm ²) |
|----------------------|----------------|--------------------|---------------|-------------------------------------|-----------------------------|
| 2412 - 2462 | 683.701 | 6.77 | 35 | 0.21112 | 1 |
| 5180 ~ 5240 | 269.654 | 6.77 | 35 | 0.16235 | 1 |
| 5260 ~ 5320 | 189.964 | 6.77 | 35 | 0.05866 | 1 |
| 5500 ~ 5700 | 209.626 | 6.77 | 35 | 0.06473 | 1 |
| 5745-5825 | 243.142 | 6.77 | 35 | 0.07508 | 1 |

NOTE: 2.4GHz & 5GHz: Directional gain = 2dBi + 10log(3) = 6.77dBi

Conclusion:

The formula of calculated the MPE is:

$$CPD1 / LPD1 + CPD2 / LPD2 + \dots \text{etc.} < 1$$

CPD = Calculation power density

LPD = Limit of power density

$$WLAN\ 2.4GHz + WLAN\ 5GHz = 0.21112 / 1 + 0.16235 / 1 = 0.37347$$

Therefore the maximum calculations of above situations are less than the “1” limit.

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